intensity of the spark is not less than 160 times that of the electric arc.—M. **Dussaud**: An apparatus for projecting an image of any object on a screen 3 metres square in a lighted room, with a current of 3 amperes.—P. **Jolibois**: A photographic method of registering chemical reactions accompanied by a variation in pressure. The mercury manometer tube has a fine platinum wire stretched throughout its length, and the variations in the resistance of this wire serve as a measure of the height of the manometer. The temperature at which the reaction under study is proceeding is measured by a thermo-couple, and the double galvanometer of Le Chatelier and Saladin is employed to record the temperature and pressure simultaneously. Some possible applications are described.—H. **Joly**: The geology and physical geography of the Rio Guadiato depression (Sierra Morena, Spain). This depression is due to the tectonic structure of this part of the Sierra Morena, which recalls that of the Franco-Belgian coal basin.—A. **Carpentier**: Discovery of the genus Plinthiotheca in the Westphalian in the north of France.—J. **de Vilmorin**: The crossing of peas with coloured pods.—A. A. **Mendes-Corrêa**: Some sexual differences in the skeleton of the superior limbs. A discussion of the problem of determining the sex of a skeleton.—M. **Doyon**: The physiological properties of the nucleic acids of the lymphatic ganglia and of the thymus. The conditions for obtaining a thymo-nucleic acid very active on blood. The lymphatic ganglia of the ox and the thymus glands of the calf are specially recommended as sources of nucleic acids. Full details of the technique of extraction are given.—J. **Legendre** and A. **Oliveau**: The *rôle* of the domestic rabbit in the attraction and nutrition of *Anopheles maculipennis*. This Anopheles during its period of activity in the spring seeks the blood of mammals as food, with a marked preference for the blood of the domestic rabbit. In the presence of man, cattle, horses, pigs, fowls, and rabbits, the preference for the rabbit amounts to protection for man and other animals.

ROME.

Reale Accademia nazionale dei Lincei, January 2.—Prof. V. Volterra, vice-president, in the chair.—G. **Ciamician** and C. **Ravenna**: Influence of organic substances on plant development. The substances experimented on include pyrocatechin, guaiacol, morphine, codeine, theobromine, caffeine, atropine, and cocaine.—B. **Grassi**: Can Anopheles propagate malaria directly? At Fiumicino a baby a few months old caught malaria in a house visited eight days previously by an infected youth. In another case a woman recovering from the fever was visited by two friends, who stayed only a few hours in the house, but developed symptoms on returning to Rome. From examinations of the Anopheles in the district the author considers it doubtful whether infection could have taken place otherwise than by direct transmission, and hopes to test the matter by experiment with some individual who is willing to undergo the necessary tests.—F. **Bottazzi**: The posterior salivary gland of the Cephalopod, iv. Secretive activity of the gland under various experimental conditions.—O. **Lazzarino**: Equations of rotation about a fixed point of a solid with cavities filled with viscous liquids.—C. **Severini**: Integral equations.—L. **Tonelli**: Two propositions of Lindeberg and Levi in the calculus of variations, i.—V. **Sabatini**: Unity of the Vulsinio system. This system consists principally of two large craters, one of Latera and the other of Bolsena, the latter having no equally large counterpart in Europe. The probability of these having a common focus or communicating foci appears better justified than in the parallel case of the Cimini system.—G. **Cotronei**: Causal morphology of eye development in the toad.—E. **Remotti**: Variations in the specific weight of eggs of Teleosteans during development in shallow or deep water.—S. **Sergi**: Vertebro-medullary topography of chimpanzee, ii.—Prof. Castelnuovo was elected secretary of the Academy.

January 16.—Prof. F. D'Ovidio, president, in the chair.—G. **Pellizzari**: Synthesis of *o*-phenylenedicyanoguanidine from *o*-phenylenediamine.—A. **Comessatti**: Geometric theory of binary forms, iv. Typical representation of co-variants.—S. **Lefschetz**: "Sur le théorème d'existence des fonctions abéliennes."—G. **Castelnuovo**: Abelian functions, i. Intermediary functions.—E. **Bompiani**: Metric invariants and covariants in deformations of surfaces, iv.—R. **Serini**: Dirichlet's symmetrical cylinder problem.—N. **Parravano** and C. **Mazzetti**: Transformation of light into heavy magnesia. It is found that the change takes place at comparatively low temperatures, but the rate of transformation increases continuously with increase of temperature.

February 6.—Prof. V. Volterra, vice-president, in the chair.—Original contributions by fellows:—C. **Segre**: Foci of second order of infinite systems of planes, and hyperspatial curves with a double infinity of plurisecant planes.—G. **Ciamician** and R. **Ciusa**: Constitution of benzol and heterocyclic nuclei.—G. **Bruni**: Solubility of crystalline substances in caoutchouc. Caoutchouc can be regarded as a thick liquid and its solvent power varies, being greatest for the aromatic series and least for minerals. Vulcanised rubber has the character of a saturated solution of sulphur in presence of free sulphur.—F. **Millosevich**: Minerals of Latian province. During excavations in the Peperino at Albano melilite was discovered in some blocks in crystals of somewhat exceptional purity.—Papers communicated by fellows:—Prof. A. **Lo Surdo**: Synthetic helium and neon.—Dr. M. **Ferrari**: Beryl from Piona (on the left bank of the Lake of Como near Colico).—C. **Jucci**: Uratic deposits in the fat of Termites.—The chairman, Prof. Volterra, announced the death of Prof. Giuseppe Colombo on January 16. The Academy has also lost the foreign fellows, Profs. Waldeyer and Federow. Prof. Mattirolo contributed a notice of the work of the late Prof. Pier Andrea Saccardo. For the Royal prize for astronomy four candidates submitted lists of papers. The chairman announced that a prize had been offered by the King in commemoration of the late Prof. Augusto Righi for the best work on experimental physics contributed by one of Prof. Righi's former pupils at Bologna.

Books Received.

Tidal Power. By A. M. A. Struben. (Pitman's Technical Series.) Pp. xii+115. (London: Sir I. Pitman and Sons, Ltd.) 2*s*. 6*d*. net.

Continuous Wave Wireless Telegraphy. By Prof. W. H. Eccles. Part i. Pp. vii+407. (London: Wireless Press, Ltd.) 25*s*. net.

Social Decay and Regeneration. By R. Austin Freeman. Pp. xx+345. (London: Constable and Co., Ltd.) 18*s*.

The Alpha, Beta, Gamma Navigation Tables. By H. B. Goodwin. Pp. iv+54. (London: J. D. Potter.) 8*s*.

Annuaire de l'Académie Royale des Sciences, 1921. Pp. 452. (Bruxelles: M. Lamertin.)

Diagnosis of Protozoa and Worms Parasitic in Man. By Prof. R. W. Hegner and Prof. W. W. Cort. Pp. 72. (Baltimore, Md.: Johns Hopkins University.)

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British Museum (Natural History). British Antarctic (*Terra Nova*) Expedition, 1910. Natural History Report: Zoology. Vol. iii., No. 7, Crustacea. Part v., Ostracoda. By R. W. Barney. Pp. 175–90. 4*s*. 6*d*. Vol. iii., No. 8, Crustacea. Part vi., Tanaidacea and Isopoda. By Dr. W. M. Tattersall. Pp. 191–258+xi plates. 21*s*. Vol. vi., No. 1, Protozoa. Part i., Parasitic Protozoa. By Dr. H. M. Woodcock and Olive Lodge. Pp. 24+3 plates. 9*s*. (London: British Museum (Natural History).)

Relativity, the Electron Theory, and Gravitation. By E. Cunningham. (Monographs on Physics.) Second edition. Pp. vii+148. (London: Longmans, Green and Co.) 10*s*. 6*d*. net.

A Text-book of Botany for Medical and Pharmaceutical Students. By Prof. J. Small. Pp. x+681. (London: J. and A. Churchill.) 25*s*. net.

Chromium Ore. By W. G. Rumbold. (Imperial Institute Monographs on Mineral Resources, with Special Reference to the British Empire.) Pp. ix+58. (London: J. Murray.) 3*s*. 6*d*. net.

Freshwater Fishes and How to Identify Them. By Dr. S. C. Johnson and W. B. Johnson. Pp. 64. (London: The Epworth Press.) 1*s*. 9*d*. net.

Ministry of Public Works, Egypt: Physical Department. Meteorological Report for the Year 1915. Pp. x+122. (Cairo: Government Press.) P.T.30.

Department of Agriculture and Technical Instruction for Ireland: Fisheries Branch. Scientific Investigations, 1920. No. 2, Sponges of the Coasts of Ireland. By Jane Stephens. II.: The Tetraxonida (concluded). Pp. 75+vi plates. (Dublin and London: H.M. Stationery Office.) 3*s*. net.

Studies in the History and Method of Science. Edited by Charles Singer. Vol. ii. Pp. xxii+559+lv plates. (Oxford: Clarendon Press.) 48*s*. net.

Parallaxes of 260 Stars derived from Photographs made at the Leander McCormick Observatory. By Prof. S. A. Mitchell and others. Pp. v+695. (New York: Columbia University Press.)

The British Freshwater Rhizopoda and Heliozoa. Vol. v., Heliozoa. By G. H. Wailes. Pp. xi+72+plates lxiv–lxxiv. (London: Ray Society.)

A Handbook on Cotton and Tobacco Cultivation in Nyasaland. A Guide to Prospective Settlers. By J. Stewart J. McCall. Pp. 85. (Zomba: Government Printer.)

British Museum (Natural History). No. 7, Report on Cetacea Stranded on the British Coasts during 1919 and 1920. By Sir S. F. Harmer. Pp. 18. (London: British Museum (Natural History).) 4*s*.

Primitive Society: The Beginnings of the Family and the Reckoning of Descent. By Dr. Edwin S. Hartland. Pp. v+180. (London: Methuen and Co., Ltd.) 6*s*. net.

Electrical Engineering. By Dr. T. F. Wall. Pp. xi+491. (London: Methuen and Co., Ltd.) 21*s*.

Vocational Chemistry for Students of Agriculture and Home Economics. By Prof. John J. Willaman. (Farm Life Text Series.) Pp. ix+294. (Philadelphia and London: J. B. Lippincott Co.) 8*s*. 6*d*. net.

Agricultural Economics. By Prof. James E. Boyle. (College Texts: Agriculture.) Pp. ix+448. (Philadelphia, Chicago, and London: J. B. Lippincott Co.) 12*s*. 6*d*. net.

Ministry of Munitions and Department of Scientific and Industrial Research. Technical Records of Explosives Supply, 1915–18, No. 1. Recovery of Sulphuric and Nitric Acids from Acids used in the Manufacture of Explosives: Denitration and Absorption. Pp. viii+56. (London: H.M. Stationery Office.) 12*s*. 6*d*. net.

The Dynamics of the Airplane. By Prof. Kenneth P. Williams. (Mathematical Monographs, No. 21.) Pp. viii+138. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 13*s*. 6*d*. net.

The Elements of Theoretical and Descriptive Astronomy. By Charles J. White. Eighth edition, revised by Paul P. Blackburn. Pp. xi+309+ix plates. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 17*s*. 6*d*. net.

Handbuch der Pharmakognosie. By A. Tschirch. Band III., Lieferung i. Pp. 64+i plate. (Leipzig: C. H. Tauchnitz.) 10 marks.

The Story Book of the Fields. By J. H. Fabre. Pp. 271. (London: Hodder and Stoughton, Ltd.) 8*s*. 6*d*. net.

The Tin Resources of the British Empire. By N. M. Penzer. (The Raw Materials of Industry.) Pp. x+358. (London: W. Rider and Son, Ltd.) 15*s*. net.

An Introduction to the Psychological Problems of Industry. By Frank Watts. Pp. 240. (London: G. Allen and Unwin, Ltd.) 12*s*. 6*d*. net.

University of London: Galton Laboratory for National Eugenics. Eugenics Lecture Series, xiii.: Side Lights on the Evolution of Man. By Karl Pearson. Pp. 27+vii plates. (London: Cambridge University Press.) 3*s*. net.

Kritische Bemerkungen zu den Grundlagen der Relativitätstheorie. By Prof. H. Dingler. Pp. 29. (Leipzig: S. Hirzel.) 3 marks.

Diary of Societies.

THURSDAY, APRIL 21.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. H. S. Foxwell: Nationalisation and Bureaucracy.

ROYAL SOCIETY, at 4.30.—Prof. J. Joly: A Quantum Theory of Colour Vision.—Prof. A. V. Hill: The Energy involved in the Electric Change in Muscle and Nerve.—H. M. Kyle: The Asymmetry, Metamorphosis, and Origin of Flat Fishes.—T. L. Prankerd: Studies in the Cytology of the Statolith Apparatus in Plants, viewed in Relation to their Habit and Biological Requirements.

ROYAL SOCIETY OF MEDICINE (Dermatology Section), at 5.

LINNEAN SOCIETY, at 5.—Prof. R. Newstead: Some Observations on the Natural History of the Upper Shiri River, Nyasaland.

LONDON MATHEMATICAL SOCIETY (at Royal Astronomical Society), at 5.—L. J. Mordell: Note on Papers by Mr. Darling and Prof. Rogers.—Pandit Oudh Upadhyaya: (1) Cyclotomic Quinquesection; (2) A Generalisation of a Theorem of Booth.—C. Krishnamachary and M. Bhimasena Rao: Properties of Eulerian and Prepared Bernoullian Numbers.

INSTITUTION OF MINING AND METALLURGY (Annual General Meeting) (at Geological Society), at 5.30.—F. W. Harbord: Presidential Address.

CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Dr. J. E. Borland: The Musical Training of Children.

THE CHEMICAL SOCIETY, at 8.—F. Challenger and C. F. Allpress: Organo-derivatives of Bismuth. Part iv.: The Interaction of the Halogen Derivatives of Tertiary Aromatic Bismuthines with Organo-derivatives of Magnesium and Mercury.—J. A. N. Friend: A Colloid Theory of the Corrosion and Passivity of Iron and of the Oxidation of Ferrous Salts.—G. T. Morgan and J. D. Smith: Researches on Co-ordination and Residual Affinity. Part iv.: The Constitution of Simple and Complex Cobaltic Quinoneoxime Lakes.—G. T. Morgan and H. Burgess: Non-aromatic Diazonium Salts. Part vi.: 3:5-Dimethyl*iso*oxazole-4-diazonium Salts and their Azo-derivatives.—E. de B. Barnett and J. W. Cook: Studies in the Anthracene Series. Part i.—J. B. Firth: Some Factors governing the Sorptive Capacity of Charcoal. Sorption of Ammonia by Coconut Charcoal.—N. V. Sidgwick and E. K. Ewbank: The Influence of Position on the Solubilities of the Substituted Benzoic Acids.—N. V. Sidgwick and W. M. Aldous: Influence of Position on the Solubility and Volatility of the Mono- and Di-nitrophenols.—N. V. Sidgwick and H. E. Rubie: The Solubility and Volatility of the Chloro- and Nitro-anilines and their Acetyl Derivatives.—G. A. R. Kon: The Formation and Stability of *spiro*-Compounds. Part iv.: The Formation of Ketones derived from Open-chain and Cyclic Glutaric Acids by the Thermal Decomposition of their Calcium Salts.—W. J. Jenkins: Interaction of Acetylene and Mercuric Chloride.

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